TRENCHLESSWORKS

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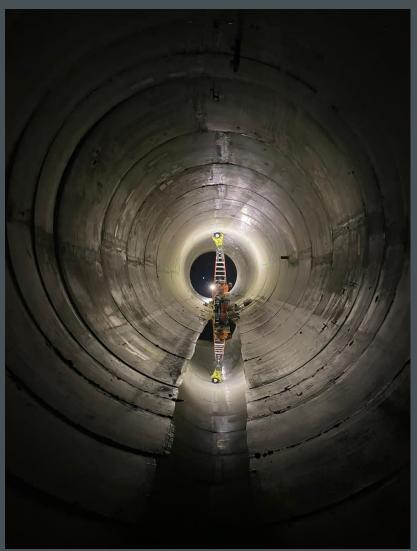


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SPOTLIGHT





lan Clarke, Editor-In-Chief, Trenchless Works

Hello All

An interesting report was issued recently by Linewatch, an organisation of high-pressure oil and gas pipeline operators which acts to raise awareness of the networks existence and encourage safe working practices when planning and undertaking work around them.

The report whilst, specific to the oil and gas sector, and not so much the sort of buried services that is the focus of most trenchless technologies, did raise an issue that perhaps needs addressing. That is a rise in the number of construction workers and developers that were found to be working too close to high-pressure oil, gas, and chemical pipes without the owner's permission. An increase of 57% was observed in 2022, although better reporting may have impacted some of the figures. Of these some 316 incidents in 2022 were reported to Linewatch, with 127 (40%) were caused by contractors and developers. The full 2022 Infringement Report can be found here.

One of the interesting numbers from the report was that some 25% of these infringements were located at road crossing or on road verges, an area in which significant amounts of trenchless works occur.

Furthermore, looking at the breakdown of these figures, whilst the utility sector showed some slight improvement over the previous year at 24% of infringements, Local/Highway authorities showed an increase to 24%.

The Report also stated that close to half (45%) of infringements occurred even though the person responsible for the incident was already aware of the pipeline's existence, an increase of some 15% on 2021. This would appear to highlight a distinct casualness, amongst some operators, about the dangers of working near pipelines. It appears that there is an assumption that high-pressure pipelines carrying flammable oil, gas, and chemicals are buried too deep underground to hit, not true as they can be as little as 3 feet below the surface, according to the report.

According to a comment from Murray Peat of Linewatch in the press release concerning the report: "There are no signs of digging slowing down as the Government commits to kickstarting the UK economy to regain control over spiralling inflation. It is therefore more important than ever that the correct digging procedures are followed." >

SPOTLIGHT



What is perhaps most worrying is the fact that 45% of those involved in incidents knew the pipeline was there. What the report does not highlight however is how many of those actually undertook an independent site survey prior to works to prove or disprove the location and depth of the potential problematic pipeline. Highways and utilities should already be aware of the technologies available to make these checks, but appear not to be using to the extent they should, from a safety point of view, let alone from a financial point. Other areas covered in the report such as agriculture, other land owners, construction sites and developers may not be so aware of what is 'out there' for them to utilise.

There are therefore obvious areas that the remote mapping sector could be focussing on to improve this use of EM and GPR systems where there are those operators that are not familiar with them.

However, we may also be witnessing the limited knowledge of the insurance sector. Most projects carry some form of insurance against strikes or near misses on third party plant and it would be the insurer that carries the can for any costs involved. This of course then passes back to the rest of industry in increased premiums for all. Perhaps there is some milage for the insurance sector to question how well pre-operations site surveys have been carried out before paying out in full for some incidents that might otherwise have been avoided had the right investigations been undertaken before digging starts, for full open cut or even trenchless works.

Ian Clarke
Editor-in-Chief Trenchless Works



Trenchless Asia Press Conference



The potential for rapid growth in the Malaysian trenchless market was highlighted by the Federal Government's announcement at Trenchless Asia that it has allocated RM1.7 billion under the 12th Malaysia Plan (12MP) to develop sustainable infrastructure with the implementation of sewerage projects throughout the country.

In a speech delivered at the opening ceremony of Trenchless Asia the Malaysian Natural Resources, Environment and Climate Change Minister, Nik Nazmi Nik Ahmad, said this work was part of the ongoing efforts to modernise the sewerage infrastructure and provide efficient and quality sewerage services to all Malaysians. He went on to say that Malaysia has currently achieved 85.4% of sewerage services in its major cities and aims to reach 90% sewerage coverage by the end of the 12MP in 2025. >



Trenchless Asia Opening Ceremony

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Faizal Otthoman, MATT President further reinforced with the attendance of YBrs. Dr. Ching Thoo, Deputy Secretary-General (Water and Sewerage), Ministry of Environment and Water and Wan abd Rahul wan Abdullah Director - General of Sewerage Services Department both of whom took time to meet with exhibitors and learn more about the latest technological innovation on display.

The Government's support of the whole trenchless sector was

The event was also brilliantly promoted and supported by the Malaysian Society of Trenchless Technology (MATT). MATT's excellent reputation and ever-expanding network helped to broaden its reach and penetrate the local market, creating networking and new business opportunities for exhibitors and visitors alike.

Commenting on the potential of the Malaysian trenchless market, the president of the Malaysian Association of Trenchless Technology, Faizal Othman, said: "We're very excited about prospects going forward. Malaysia is going through a phase of modernising its infrastructure and sewerage systems with plans for region plants that will connect millions of households and ensure better control and care for the environment. But underneath all that are the trenchless heroes who support the Government in delivery of its plans. As well as installation of new infrastructure, there is a very serious programme for rehabilitation and extensions which will maintain and improve existing infrastructure." >

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"We have been very impressed with the both the quality and quantity of visitors to our booth,"

Utilising every available meter of hall space at the wonderful Kuala Lumpur Convention Centre, Trenchless Asia's exhibition floor was bursting with hugely impressive displays from several of the industry's biggest names including Jiangsu Goodeng heavy machinery technology, JBP Composites, Anhui Tangxing machinery equipment, DWTXS, Vermeer and XCMG. With over 120 exhibitors and more than eight of the latest rigs on the show floor there was plenty to grab the attention of visitors and delegates. The drinks reception on the first evening was also very well attended giving exhibitors and delegates the opportunity to continue networking in what was a fun and relaxed environment.

"We have been very impressed with the both the quality and quantity of visitors to our booth," said JBP Composites', Managing Director, Borje Persson. "Trenchless Asia provides the perfect platform for suppliers, and those working on the underground utilities sector, to come together and find cost-effective and sustainable solutions to the installation and rehabilitation of this critical infrastructure. We look forward to next year's event in Manila and returning to the beautiful city of Kuala Lumpur in 2025." >







Opening Address

"Trenchless Asia 2023 was the largest trenchless event to ever be held in what is the world's fastest growth economic region."

The Trenchless Asia conference programme was a real highlight of the show. Expertly curated by ISTT President and the 2023 Conference Chair, Dr Declan Downey, both conference rooms were filled to capacity throughout the two days. Delegates were welcomed to the show by ISTT Chairman, Professor KJ Shou and given a detailed insight into the Malaysian market by speakers from the Ministry of Natural Resources, Environment and Climate Change and the Malaysian Association for Trenchless Technology (MATT). The international update continued with contributions from GSTT, SGSTT and Maynilad Water while the technical programme featured a host of experts covering the latest technologies and techniques, many of which were on display at the show.

Paul Harwood Managing Director, Westrade Group and event organiser, reflect on the success of the event saying: "Trenchless Asia 2023 was the largest trenchless event to ever be held in what is the world's fastest growth economic region. Major investment in the sustainable installation and rehabilitation of underground utilities has resulted in unprecedented levels of demand for trenchless technology across the continent and this was reflected in the extraordinary number of exhibitors and visitors we saw in Kuala Lumpur. We even had to extend our opening hours as so many exhibitors were still involved in conversations on their booths. We are already experiencing high levels demand for next year's event and look forward reconnecting with this inspirational community in the Philippines."

Trenchless Asia's popularity looks set to continue when the show visits the Philippine capital of Manilla in 2024 before returning to Kuala Lumpur in 2025.

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The No-Dig Road Show series is organised by Westrade Group Ltd and supported by the United Kingdom Society for Trenchless Technology (UKSTT)















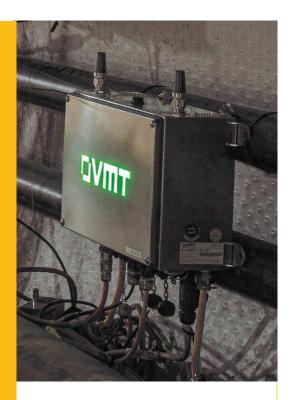
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OVARRO ANNOUNCES NEW LEAKAGE TECHNOLOGY LEADER



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Barbara Hathaway

Ovarro has announced the appointment of Barbara Hathaway as its new technology leader specialising in leakage solutions.

Barbara joined the technology company 27 years ago as a software engineer for Primayer, which was acquired by Ovarro in 2019. After working as customer services manager and technical services director, she became vice president of engineering in 2020. In this newly created role, Barbara will lead and develop Ovarro's technology strategy and roadmap for leakage solutions.

She said: "The last two years have been an incredibly challenging time for the electronics industry with supply chain shortages impacting the entire sector. Thankfully, these problems are starting to ease, which means we can renew focus on researching and developing next generation leakage reduction technologies for the global water sector.

By liaising with others in the industry, I hope to quickly drive through exciting technological ideas and collaborations which will support utilities with their leakage strategies. The world population is increasing and with this, demand for water. Widespread loss through leaking pipes is no longer acceptable in the eyes of the public and regulators and water companies must ensure they get maximum efficiency out of their assets. This means companies are more willing to consider new ways of working, with many embracing our acoustic fixed network loggers. We are now looking at how our products and services can advance further to have an even greater impact on leakage targets and environmental performance. It is a very exciting time for water technology. I am thrilled to be leading Ovarro's drive to help utilities conserve water supplies by developing advanced leakage reduction services."

Ovarro chief executive David Frost said: "I am delighted to announce Barbara Hathaway as Ovarro's new leakage technology leader. Her knowledge and experience of leakage technology is unsurpassed and this newly created role places her at the heart of our efforts to bring next generation products and services to the water industry globally."



Dr Safak Basa, the General Manager of ISKI, receives TSITT Board Members Yasin Torun, Abdulkadir Aydin and Cengiz Bassa



The Ayvalidere Storm Water microtunnelling project

METROPOLITAN MAYOR VISITS MICROTUNNELLING PROJECT

Istanbul, the Turkish metropolitan city with a population of 16 million people, currently hosts several ongoing microtunnelling projects. ISKI (Istanbul Water and Sewerage Utility) is constructing a 4 m diameter and 20,614 m long potable water transmission tunnel known as the Kagithane - Bahcelievler - Sefakoy microtunnelling project.

Ekrem Imamoglu, the Metropolitan Mayor of Istanbul, paid a visit to the microtunnelling site on 19 April, 2023. Dr Safak Basa, the General Manager of ISKI, briefed the Mayor and the delegation about the status of the project as some 13,450 m of the microtunnelling works have been completed, with some 7,164 m of microtunnelling works to be completed soon. The Mayor expressed his appreciation to this trenchless construction project for bringing a better potable water supply system to the European side of Istanbul.

ISKI has several ongoing potable water, stormwater and wastewater microtunnelling projects. Many new tenders for the upcoming microtunnelling projects will be announced soon. Along with microtunnelling projects, 65 km of CIPP UV relining and 65 km PVC fold & form relining as well as 7.5 km of HDD projects are also continuing in Istanbul. >

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Dr Basa, is a great supporter of trenchless technology. He made a keynote speech at the opening ceremony of No-Dig Turkey 2022 event and he will make a keynote speech at the opening ceremony of No-Dig Turkey 2023 event.

TSITT has hosted annual No-Dig shows since 2011. ISTT and TSITT jointly held the International No-Dig 2015 Conference and Exhibition in Istanbul with great success. The conference and exhibition attracted 94 companies from 21 countries.

This year's No-Dig Turkey Conference and Exhibition will be held between 31 October and 1 November, 2023 at WOW Istanbul Hotel & Convention Centre with the theme of Earthquake Resilient Underground Pipelines. Interested authors are invited to submit their abstracts by no later than 31 July, 2023. For detailed information about registration, exhibiting and sponsoring opportunities, please visit www.nodigturkey.com or email info@akated.com



The Metropolitan Mayor with the microtunnelling Team



Dr Safak Basa, the General Manager of ISKI, briefing the Mayor and the visiting delegation



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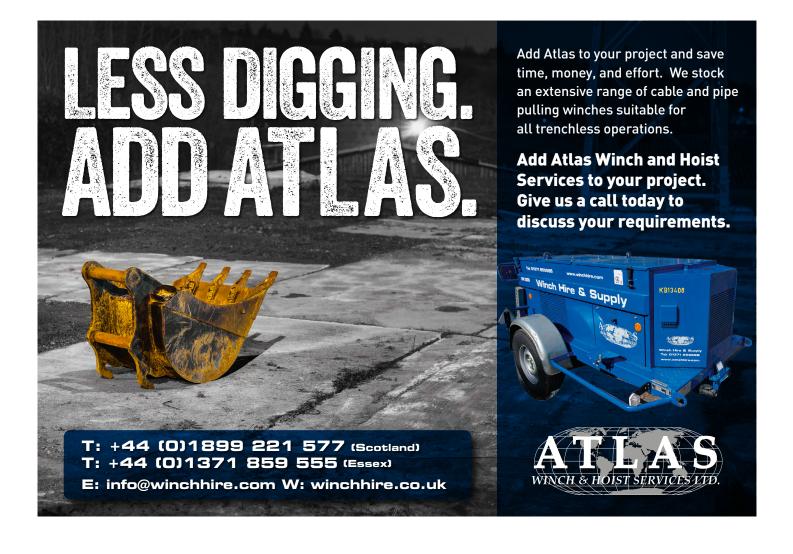














Richard Edwards, Managing Director of Naylor Drainage and Trenchless Solutions Ltd MD, Steve Varley sign-off the partnership agreement Naylor Drainage Ltd and Trenchless Solutions Ltd are delighted to announce a new partnership to provide the No-Dig market with a solutions-based sales and technical support for Vitrified Clay Jacking pipes for the UK and Ireland markets.

Heading up the team is Simon Marsh who has 30 years' experience in Trenchless Technology and will have the full backing of the Naylor's Denlok[®] team.

Naylor Drainage MD, Richard Edwards commented: "I am very excited by this initiative and Naylor will give full support to Simon and the Trenchless Solutions team to ensure $Denlok^{\circledR}$ regains its place as a reliable and cost-effective solution for No-Dig contractors."

Trenchless Solutions Ltd MD, Steve Varley said: "This agreement further demonstrates the commitment to the UK and Ireland trenchless industry of the Trenchless Group of Companies. The Denlok brand is the ideal product to be installed when using guided auger boring installation techniques, so we are extremely pleased have been awarded this agreement."

Denlok® will be promoted through a new division TS Pipe Supplies which will offer a full technical and customer service support throughout the UK and Ireland. Enquires for Denlok® products shall made directly through Simon.

Email: simon.marsh@trenchlesssolutions.co.uk



Showcasing Innovation at Utility Week Live!

Last week, UIS embarked on an exhilarating journey as they attended their very first Utility Week Live event as exhibitors. The prestigious event, held at The NEC in Birmingham, served as a platform for UIS to display their commitment to investing in the future and showcasing their cutting-edge products.

To make a lasting impression, UIS made a strategic decision to acquire new tech exhibition materials. These state-of-the-art resources allowed them to captivate attendees and present their range of innovative technology products more effectively. With these enhancements, UIS solidified their position as one of the leading tooling suppliers to the utility and construction sector in the UK.

The event not only provided UIS with a fantastic opportunity to exhibit their products but also served as a meeting ground for engaging conversations. The UIS team had the pleasure of connecting with past and present clients, fostering meaningful relationships, and igniting discussions with potential clients.

The Managing Director of UIS, Joe Iredale, expressed his enthusiasm for the event, stating, "Attending such a prestigious event and showcasing our products in such a remarkable manner truly emphasizes the remarkable journey UIS has embarked upon in the last 24 months. It positions us not only as one of the UK's leading tooling suppliers but also as pioneers in



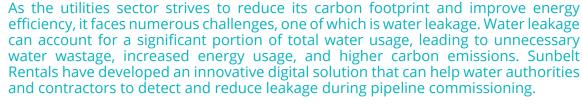
leveraging clever IoT technology to support our clients in effectively and efficiently managing their asset base. These are truly exciting times for everyone involved in UIS."

With their impressive presence at Utility Week Live, UIS has undoubtedly positioned themselves as a driving force in the industry. Stay tuned for more exciting updates from UIS as they continue their journey of innovation and growth.

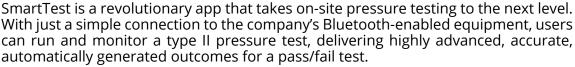
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Lee Gallagher, National Business Development Manager for Utilities at Sunbelt Rentals, commented: "With SmartTest, we are providing our customers with a reliable, efficient and accurate on-site pressure testing solution. By streamlining the testing process, our customers can save valuable time and resources, while ensuring that their pipelines are operating safely and efficiently."

SmartTest is the latest in a long line of innovative products and services from Sunbelt Rentals, which has been a leader in the utilities sector for decades. By investing in the latest technology and the best people, the company continues to provide comprehensive expertise at every stage of the pressure testing process.

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Bluetooth enabled







Vermeer Global Parts Distribution Centre Vermeer recently announced the opening of a 312,000 ft² (28,985 m²) state-of-the-art Global Parts Distribution Centre to support the important work customers and dealers are performing around the world. Vermeer team members will package and ship parts worldwide from the facility, located on the grounds of the corporate headquarters. The Global Parts Distribution Centre builds on a legacy of customer support, located at the end of the old runway where company founder Gary Vermeer once delivered parts to Vermeer customers by plane.

"Vermeer is focused on optimising this facility so we can most efficiently deliver the right part at the right time to our customers. This facility allows customer support, engineering, procurement and logistics to be co-located. They work in conjunction with our operational team members to make sure we fulfil customer and dealer expectations daily." said Tony Briggs, vice president of the Vermeer Lifecycle product group.

The location of the Global Parts Distribution Centre leverages the manufacturing capabilities of the Vermeer mile, where most Vermeer products are assembled.

"Almost one third of the warehouse is filled with parts made by different manufacturing plants on the Vermeer mile. It is very convenient for us to be located near the manufacturing facilities that supply those parts. Ultimately, we bundle the Vermeer-manufactured parts with other parts and ship the orders around the world to take care of our customers." said Briggs.

Three times more space than the previous building, the new Global Parts Distribution Centre includes 23 dock doors, a warehouse management system and improved warehouse technology. This investment will help drive efficiency by centralising parts storage.

With people at the centre of everything we do, this new facility helps our team members equip dealers and support customers and that ultimately makes a real impact on their ability to get important work done." said Jason Andringa, Vermeer president and CEO.

The Global Parts Distribution Centre is the second facility Vermeer has opened in 2023. Earlier this year, the company expanded its parts manufacturing footprint in Des Moines, Iowa, USA. That facility manufactures horizontal directional drill tooling and utility tractor attachments.

As the number of products and markets Vermeer supports expands, the company continues to invest in its aftermarket efforts to meet the needs of a global economy. Website: www.vermeer.com



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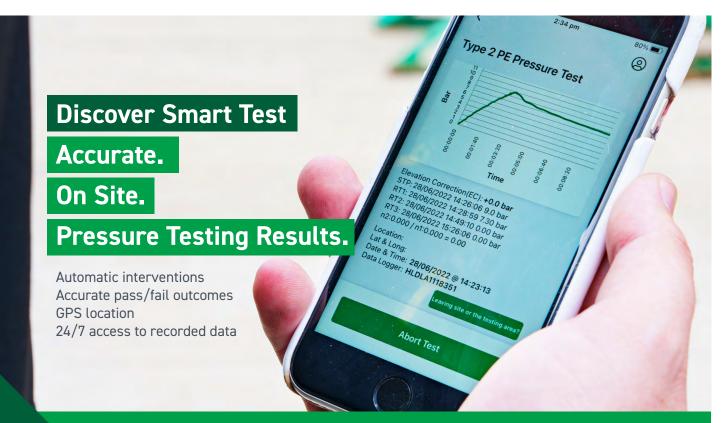
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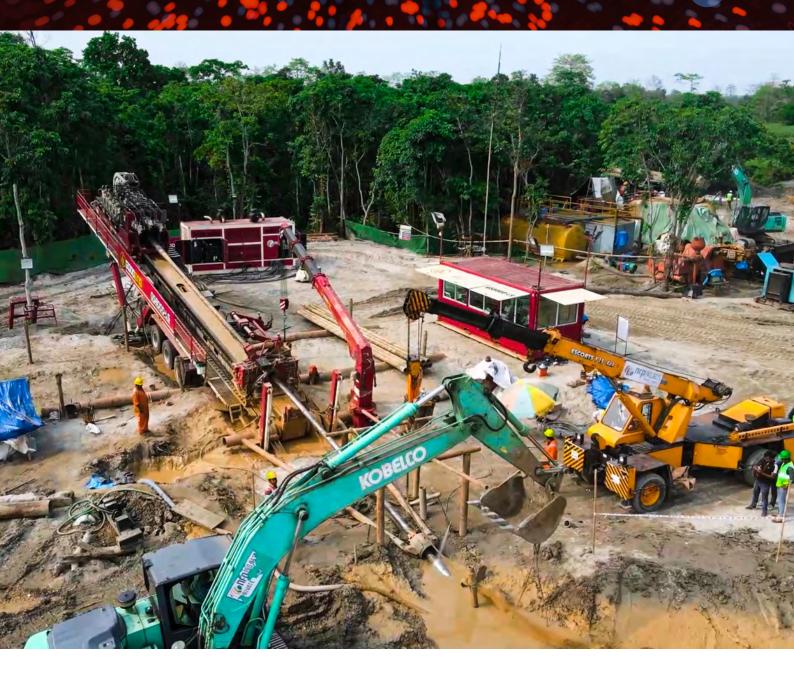






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Rig Side During Pulling Activity

INSTALLING INDIA'S LONGEST HDD BORE TO DATE

As part of Indradhanush Gas Grid Limited's North East Gas Grid Pipeline Project, an HDD pipeline installation was required crossing of the mighty Brahmaputra River, in the state of Assam, North East India.

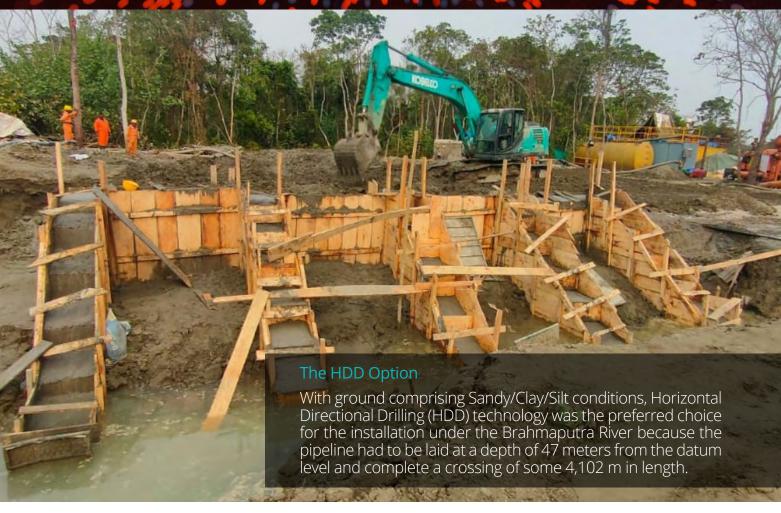
The main contractor for the project was NRP Projects Private Limited (NRP), which

undertook not only the practical application of the HDD technology for the pipeline installation but also the design work for the HDD and associated works required.

The new North East Gas Grid Pipeline Project is designed to meet the gas needs of the entire North Eastern states of India, leveraging the northeast region's hydrocarbon potential. It will enhance access to clean fuels in the industrial, commercial, domestic household and transportation sectors amongst others. It will also facilitate a boost in industrial and economic development in the North East region of India. >

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Rig Deadman Foundations



The requirements of such a long and deep crossing meant that the selection of the right equipment was paramount. The design of the installation was based on the intersect method which required two pilot bores to be installed, usually at the same time such that the drill strings meet at about the halfway point in the crossing. Two pipelines were to be installed beneath the Brahmaputra River, one for the main gas pipeline and one for telemetry conduit which would run parallel to it. Ground investigation included a geotechnical survey which was carried out through the entire 4,102 m to ascertain the geology to assess the tooling required. Conventional vertical drilling was used to collect soil samples.

To complete the set of bores required, NRP ultimately selected two spreads of XCMG XZ6600 drilling rigs for pilot and reaming and a GOODENG GS8000-LS HDD drilling rig which would be set up on either side of the river. The drilling rigs had pulling capacities of 660 t and 800 t respectively. The GS8000LS was selected on the basis of its design pull load of 638 t. A concrete Deadman was cast in addition to the conventional steel Deadman anchor which is used for any HDD projects. The guidance system used for the bores was a PARATRACK II system.

For the downhole tooling, NRP utilised 10% in (270 mm) diameter drill bits for the pilot bores with in-house designed reamers for hole opening to the required diameter. Drilling fluid was handled with a Kemtron Tango 1000HDX recycling unit with BW3000, Garner Denver -PZ8, CWB-2800LPM and Oilwell A1700 mud pumps. The drilling mud comprised a sodium-based bentonite with additional Soda Ash, Xantham Gum and Pac R additives. The mud mixing unit was designed in-house by NRP. >



As previously mentioned, two bores were required for the project, one over a length of 4,080 m and one of 4,100 m length. The first was for a conduit pipe which was a 6 in (150 mm) o.d. pipe and the second was the for the gas main which was a 24 in (610 mm) o.d. pipe.

For the conduit pipe bore, once the pilot run was completed the conduit pipe itself was pulled directly into place.

For the gas main bore, on completion of the pilot run, some five reaming stages were required including:

STAGE I – reaming up to 24 in (610 mm) diameter STAGE II – reaming up to 36 in (914 mm) diameter STAGE III – reaming up to 42 in (1,066 mm) diameter STAGE IV – a clean pass run at 36 in (914 mm) diameter STAGE V – the product pipe run with a 24 in (610 mm) diameter reamer

The pipes used for the 6 in (150 mm) conduit pipe included subducted 40 mm diameter HDPE duct and fibre optic cable, API 5I gr b seamless and a wall thickness of 10.7 mm, which was supplied by NRP.

The main gas pipe was a 24 in (610 mm) diameter, API 5I gr x70 with a wall thickness of 12.7 mm, which was welded by NRP at the site and supervised by a third party, IGGL. The pipes were supplied by IGGL as 12 m lengths and welded using the SMAW Process.

The entire pipe string was floated in a trench filled with water with a total of 19 excavators being deployed to handle the string during the operation and pull-in. A good buoyancy control system was also in place to facilitate good pipe handling. >



Detail of the intersected drill bits



Pipe Side during pulling activity

INSTALLATION TIMINGS

For the smaller diameter installation, the pilot bore started on 28 October 2022 and took 55 days to complete. The pipe pull took a further 2 days, finishing on 26 December 2022. In total some 57 days.

For the gas main itself, pilot boring commenced on 7 January 2023 and took 27 days. Stage I reaming commenced on 11 February 2023 and took 15 days; Stage II took 19 days from 27 February and Stage III took 14 days from 16 March. The Clean Pass took 8 days from 30 March, with the pipe pulling operation starting on 19 April and completing just 4 days later on 21 April after pulling continuously for 56 hours. In total some 86 days.

CHALLENGES

A number challenges faced the contractor during the course of the Brahmaputra River crossing project including:

- A narrow road leading to nearby villages and then to the project location.
- Rains made it extremely difficult to haul equipment, consuming a lot of time.
- Given the size of the project and the amount of equipment required, local villagers demanded proper approach roads with these problems being solved by NRP under the guidance of IGGL with significant sums being spent to make the roads useable
- Transporting the HDD materials from one side of the river to the other side using trailers was a daunting task due to narrow approaches through the villages.
- The river on the pipe side of the project (Jorhat) used to get filled with rain water which made it extremely difficult to move around, so additional excavators needed to be deployed
- A short spell of rain could hamper progress for weeks, however, NRP stepped up and deployed 'round the clock' working to enable the target date of 21 April 2023 to be reached.
- The major challenge was to execute and complete the project within the narrow window of 4 months to avoid entering a long monsoon period. >



The entire project operated on either side of the Brahmaputra River, with Majuli (the first island district of India since 2016) on one side and Jorhat town on the other. Permissions were taken in general by IGGL and the public was made aware of the importance of the project and the benefit it would provide to their daily gas needs.

The space constraint was also a significant challenge, with a lot of time being spent in making the necessary site approaches, through seeking permissions from the local village heads. This was a challenge as they had not before witnessed such a huge fleet of equipment passing through their narrow roads, a lot of time was spent by NRP and IGGL in discussions to ensure that inconvenience to locals would be minimised, which then allowed the project to proceed. The actions of the teams and the locals were said to be commendable.

Commenting on the project the chairman of NRP, Mr | R Patel said: "Congratulations to Team NRP for the untiring efforts in executing the longest and most challenging crossing of 4,102 m by installing a 24 in and 6 in pipeline under the Brahmaputra River, India. NRP surpassed the previous record of 4,088 m for longest HDD installation, also set by NRP, on completing this crossing of 4,102 m. Supported by the highly skilled manpower, a fleet of equipment, including two HDD Rig spreads of 660 t and 800 t, and adequate buoyancy measures, the pulling for over a period of 56 hours, the 24 in steel pipe of 4,102 m at a depth of 47 m was a smooth affair. NRP is proud to achieve the success of this longest HDD installation within 3½ months due to meticulous planning and implementation. I congratulate and thank Team NRP, including the staff, drillers and workers associated with these crossings

Successful completion of 24 in product pipe pullback



NO-DIG EVENTS

International No-Dig events brought to you by the industry's world experts



NO-DIG ROADSHOW GLASGOW 2023

15 June 2023

DoubleTree by Hilton Westerwood Spa & Golf Resort, Glasgow. Scotland

www.nodigroadshows.co.uk



TERNATIONAL NO-DIG MEXICO 2023

ISTT's 39th International No-Dig Conference and Exhibition 17-18 October 2023

Expo Santa Fe, Mexico www.no-digmexico.com



TRENCHLESS EGYPT 2023

Part of the Trenchless Middle East Portfolio 8-9 November 2023

Cairo International Conference Centre www.trenchlessegypt.com



NO-DIG ROADSHOW & UKSTT ANNUAL AWARDS BRISTOL 2023

29 November 2023

De Vere Tortworth Court, Tortworth, Wotton-under-Edge www.nodiaroadshows.co.uk



TRENCHLESS ASIA 2024

26-27 June 2024

SMX Convention Center Manilla, Philippines



NO-DIG LIVE 2024

12 & 3 October 2024

NAEC Stoneleigh Park, Warwickshire



TERNATIONAL NO-DIG DUBAI 2024

ISTT's 40th International No-Dig Conference and Exhibition 18-19 November 2024

Dubai World Trade Centre, Dubai







CIPP INSIDE THE BUILDING

Preparing a lining insertion

NuFlow's Precision PIP (Push or Pull-in-Place) installation methods with its integrated inflation bladders have specifically been developed for the small diameter, inside the building and under slab market. Most other CIPP installation methods were developed and optimised for the volume utility sector, with long lengths of larger diameter pipes.

A critical advantage claimed for NuFlow's NuDrain and NuCure UV CIPP liners is that they achieve a full-length, full-area tight frictional interface seal, rather than relying upon local end-seals that can actually damage the structure of a CIPP liner. Furthermore, hydrophilic seals will periodically leak unless kept continuously wet. Such small, intermittent leakage may be considered acceptable for exterior buried utility work, but only zero leakage is acceptable inside of a building footprint, especially above ground.

NuFlow's products are specifically engineered to limit risky resin bleeding, in addition to the outer coating, it also relates to the denser felt tube design and the viscosity of its resins, precisely because NuFlow's market focus is inside of the building and in smaller diameter piping systems where correcting such common construction challenges becomes much more disruptive than in typical utility sector projects.

The company's tube design also permits better negotiation of bends, which tend to be more frequent in plumbing and mechanical piping, with less risk of twisting and excessive wrinkling, and with a more consistent as-built structural wall thickness.

In the smallest diameter pipes, robotic reinstatement at remote branch connections is not always practical or even possible, and the overlapping of connection liners at a reinstated service connection can result in an excessive reduction of the inside diameter. NuFlow's Precision PIP gives the additional option of 'gapping', or leaving the branch connection, 'Y' or 'T', un-lined) together with its Vertical & Horizontal Connection Liners (VHCL) to achieve a total lining system in applications where other processes would resort to more disruptive and costly measures, including additional excavation. >



Inserting a horizontal liner



Inserting a vertical liner



Working inside a building

SPONSORED BY: TRACTO

With time sensitive installations, the option of 'gapping' would allow for immediate return to service without having to wait for the much longer process of robotic connection reinstatements and, as required, the VHCL's for the branch connections can be independently installed during a separate phase of the work, or at least on a different day. The methods utilised is determined in consultation with the customer to best meet the project goals and needs.

Lastly, all CIPP liner products certified for plumbing use inside of the building envelope must also be free of VOCs (Volatile Organic Compounds) and HAPs (Hazardous Air Pollutants), the bulk of the CIPP products used in the exterior utility sector do not meet these requirements.

Advantages

NuFlow's Precision PIP installation methods permit precise monitoring of placement with a CTTV camera, easily avoiding under-shots or over-shots during liner insertion, which is absolutely critical when lining 'blind shot' branch pipes, and ensuring that joints and fittings near the end of the liner are properly sealed with extremely precise and reliable placement. Inversion and traditional pull-in-place practices are simply not capable of such precision placement and are also higher risk for insertion through multiple bends.

Furthermore, inversion comes with the likelihood of air pressure 'burps' disruptively blowing out traps within the building. In small diameter building pipes, NuFlow's Precision PIP generally lowers required installation time and provides superior performance as compared to inversion, which would generally be preferred only on long length manhole to manhole utility pipe runs which have access at both ends.

NuFlow's Precision PIP lining also enables the outer thermoplastic coating to properly contain and protect the resin, to thereby better avoid bleedout, wash-out, and emulsification during insertion and curing. The inflation bladder also reliably avoids resin blow out which can lead to CIPP liner wall leaks, which frequently happen when other processes experience inner film pinholes or seam failures. In addition, by eliminating exposure of resin to migrate into cracks in the host pipe, such as vertical stress fractures or other breakages, the cured-in-place pipe will not succumb to premature failure. By examining the pipe where vertical stress fractures or other cracks may exist, NuFlow can precisely determine where to strategically manipulate the system to protect the piping system from unnecessary failure.

The NuFlow advantage is clear. Simply put, no leakage is acceptable within the building envelope. NuFlow's containment of the resin also greatly reduces the construction risks associated with resin slugs up remote branch connections and with uncured resin left within the building envelope, especially where missing host pipe sections can result in extensive resin bleed off. This is a particularly high-risk situation in inaccessible pipes within walls or under slabs. The limitations of available robotics in small diameters means one cannot always clear such a resin slug, as generally relied upon in the utility sector, thereby often forcing an exhumed correction of slugs if they are permitted to occur at inaccessible connections under slabs or in building walls. The NuFlow system greatly reduces such project risks for the contractor and for property owners and managers.

"SIMPLE AND EASY SYSTEM TO WORK WITH!"

Svanbjörg Vilbergsdóttir was tasked by the government of Greenland to oversee small diameter pipe rehabilitation projects in hundreds of apartment buildings. She chose NuCure CCUV because it combined quality control with a fast and easy-to-execute process.

"I loved the simplicity of the NuCure UV system. And I like how fast UV works in our cold temperatures."

"Once I learned that it also came with quality assurance documentation – I was sold! I can review the data, including before and after videos, to grade it and create a report right from the portal."

"The training was excellent. And NuFlow Central offers training videos and support, so we can continue to learn on our own time. It's a simple and easy system to work with, and easy to teach others."

Svanbjörg Vilbergsdóttir Consultancy - Ráðgjöf og eftirlit

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The liner is delivered folded so that it can be installed even in pipes with the same nominal diameter. Adhesive tape keeps the liner in its U-form until it is pressurised to about 500 mbar. It then assumes its round form.



Installing the Primus connectors

The liner is pulled into the host pipe using a winch



LINER INSTALLATION ON A FOUL RISING MAIN

A client from Essex, UK-based Public Sewer Services (PSS) was confronted with a section of foul rising main which was repeatedly bursting and leaking, causing a high pollution risk as well as each burst resulting in an emergency road closure to carry out repairs, on one of only two main roads out of the local town.

The solution offered by PSS was to carry out rehabilitation on the existing pipe using a 450 m long Primus Line liner. With minimal disruption, PSS excavated one launch pit and one reception pit, 450 m apart, in order to install the liner.

The host pipe comprised 200 mm diameter ductile iron which was cleaned, scraped and pigged to ready the pipe for installation of the 450 m single length of 200 mm diameter Primus Line liner.

Primus Line is a flexible Kevlar reinforced high pressure liner that is produced at the Primus factory in Germany. It can be produced seamlessly up to a length of 4,500 m, with continuous installation lengths of up to 2,500 m. It satisfies the highest standards for media transport, notably in the area of potable water.

The benefits of using Primus Line liner for this project over traditional open cut excavations or CIPP liners included:

- Minimised disruption
- Reduced noise and traffic disturbance
- Reduced carbon footprint
- Reduced cost
- Reduced time
- No resin or curing required
- Reduced environmental impact

The 450 m of Primus Line liner was installed in just one day, with Primus connectors fitted on each end the same day to facilitate connection of the liner to the host pipe. In comparison, an open cut excavation to replace the pipe would have taken several months.

Website: www.publicsewerservices.co.uk

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UV light cured liners for pipe diameters from 100mm to 1600mm.

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Systems for patch repair in all types of pipes. Silicate resin and fiberglass together with installation equipment such as packers and pipe stoppers.





UV-CURING SYSTEMS

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TRAINING & CONSULTING SERVICES

Practical courses for engineers and other professionals working with trenchless technologies, and technical consulting.





JBP GROUP OF COMPANIES









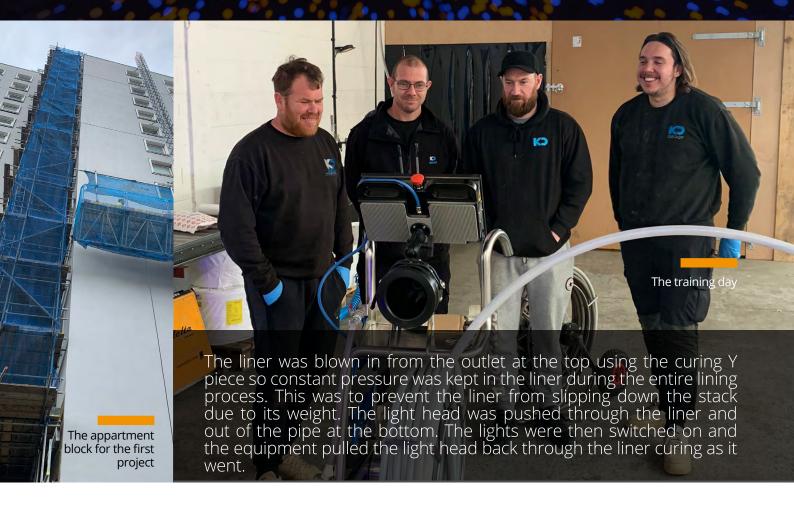
One of the lining sites on the apartment block roof

JOB ONE

The first jobsite involved lining multiple 40 m to 45 m lengths of 150 mm diameter pitch fibre stack pipe from roof outlets. This was a particularly tricky job due to access for the equipment as well as the access to the outlet of the roof drainage which was located under a large wind baffle permanently attached to the building.

All the equipment had to be transported to the roof via special access lifts on the outside of the building, lifted over the parapet walls and then manoeuvred around the roof to the installation location. Due to the weight limits and access onto the lifts through a narrow security gate on the actual lift, it was not possible to install the liner onto the inversion drum and then load it onto the lift. So, the liner was transported wrapped in a protective sheet to prevent the light from pre-curing the resins.

Once on the roof, the liner was fed into the inversion drum and all the equipment was readied for use. Access was cut into the stack pipe at the base of the block of flats to allow the liner to be fed out and stopped before it went around the rest bend in the ground as lining this portion was not required by the client. >





Inserting and inflating one of the liners



Curing a liner

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In total the actual lining only took 1 hour from the time the air was used to invert the liner to the time the curing was completed. The majority of the time taking for the overall project was to get all the equipment onto the roof.

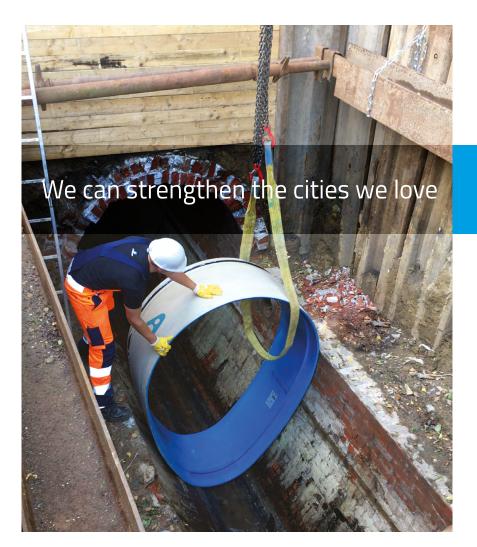
The final finish on the liners was fantastic and the client is extremely happy with the results.

These 40 m to 45 m liners, it is understood, are the longest downpipes that have been installed using LED technology in the UK, certainly using the Bluelight equipment. The use of the Bluelight reduced any risks involved. The use of the Styrene free, odour free Vinylester resins prevented any unwanted odours from entering the property and the 50-year minimum life expectancy of the products meant that long warranties could be provided to the end client.

Bluelight Lining Ltd now has 18 systems operating throughout the UK, and has a dedicated production facility along with distribution in Northampton. Bluelight Lining Ltd provides support, training, materials and equipment specialising in trenchless repair. It has a wide range of patch repair packers, materials, and equipment in stock as well as 10,000 m of liner ready to be impregnated for Bluelight users.

Bluelight Lining Ltd has partnered with Per Aasleff to supply all its products and materials, from hot cure inversion liners, pressure liners, GRP UV cured liners, as well as LED cure liners and the in-house manufacture of pre-cast GRP liners.

With many years of installation and production experience and manufacturing 1 million meters per year, the company has extensive manufacturing facilities in both Germany and Denmark. Bluelight Lining Ltd is able to use its knowledge and experience to supply some of the highest quality products into UK territories.





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CIPP – WHAT USERS NEED TO KNOW FROM A SUPPLIERS PERSPECTIVE

CIPP is usually a more cost-effective and less disruptive process than traditional 'dig and replace' pipe repair methods. A cured-in-place pipe (CIPP) is one of several trenchless rehabilitation methods used to repair existing pipelines. The technology is one of the most widely used rehabilitation methods for lateral sewers, storm pipelines and water mains, as curing lining within the existing pipe can eliminate infiltration, add strength to a pipeline, prevent pipe delamination/scaling and prevent corrosion.

CIPP methods offer pipeline engineers the option to significantly extend the life expectancy of an existing pipeline without the need to remove the old pipeline from its route, whether this is a buried pipe, a surface network, or a pipeline within a building.



CIPP benefits

A lined pipe

CIPP lining systems are considered 'trenchless technologies,' so there are multiple benefits to using this repair and curing method to rehabilitate a pipeline that is leaking or structurally unsound, including:

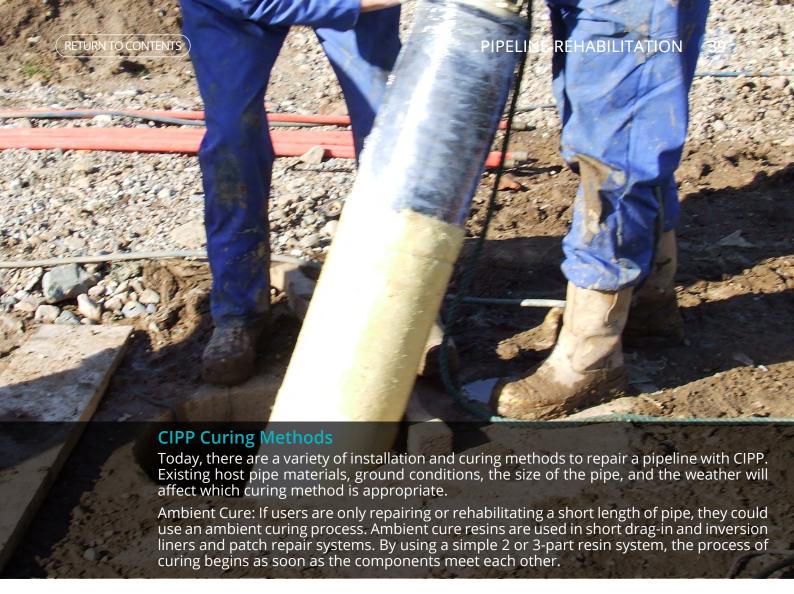
- No costly excavation and replacement of the pipe required.
- The rehabilitation operation is quicker, more convenient and saves time on site.
- It is less disruptive to the locality, as the site footprint is smaller and can be done via existing access points.
- It is environmentally friendly, as there is a minimal ecological disturbance.
- When correctly utilised, it can save money, lower costs and be safer for the workforce.

How does CIPP lining work?

The lining process requires inverting through or pulling in a resin-saturated flexible felt or fibreglass liner into the damaged or degraded pipe. This process is usually done from an existing manhole or chamber access in the lateral system, inside a house or at an exterior point. Inflating the liner with air pressure then transports the coated liner through the damaged pipe, flexing around bends to press against the inside walls. After the liner system is in place, the system can be cured by hot water, steam, or ultra-violet (UV) light, the cured liner then creates a seamless, durable pipeline within the existing pipe. >

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Access is often via existing manholes and chambers

- Advantage of Ambient cure: The Ambient cure method requires minimal equipment for the installation, therefore implying small set-up costs.
- Disadvantage of Ambient cure: Ambient cures are limited to the length of repair that is possible due to the time constraints of the resin, and environmental factors such as temperature that significantly impact that affect the speed of cure and curing time.

Hot Water Cure: Curing with hot water is the original method for CIPP lining techniques. After the liner is in place and inflated with cold water, lining engineers can begin circulating hot water into the system from the hot water boiler at the access points. The circulation creates continuous water flow from one end of the liner to the other, and the appropriate water temperature is held until the resin fully cures. When the pipe is fully cured, cold water is then circulated to cool the liner.

- Advantage of Hot Water cure: Longer lengths are possible with hot water curing than with UV methods.
- Disadvantage of Hot Water cure: Most heat-cure resins release an odour. The odour comes from styrene, which is the liquid that reacts with heat and hardens to form the liner. It is unsure of any health impacts from breathing in these emissions. There is a high-cost impact of maintaining the installation equipment such as boilers and trailers.

Steam Cure: Compared to a hot water cure process, steam is typically faster because steam can transfer heat more quickly than water. Once the liner is in place, air pressure is used to inflate and expand the liner against the pipe walls. Boilers are then used to produce the steam which is introduced into the pressurised air through one end of the liner. After the curing is complete, airflow is introduced to cool the liner and prevent shrinkage.

- Advantage of Steam cure: Longer lengths are possible with steam curing than with UV methods. Steam is typically faster than hot water curing methods because steam can transfer heat more quickly than water therefore saving time on site.
- Disadvantage of Steam cure: There is a risk of blistering of the liner caused by a lack of temperature control. Caused by heat, a blister can inhibit flow and cause blockages or accelerate the degradation of the liner. >



On site installing an LED cured liner

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UV LED Curing

A more modern method of CIPP is UV LED curing which uses no water at all and cures with fibreglass or felt liners. A Glass Reinforced Polyester (GRP) or felt liner is impregnated with a unique resin into the sewer or drain.

Introducing air pressure to the liner, it begins to expand and press against the pipe walls. A UV light train and CCTV camera is inserted into the line to align and record the condition of the pipe. The light train is then activated and pulled back through the liner at a regulated speed to cure the liner. The cure is controlled by the light train's speed while this entire process is computer-monitored for temperature, pressure, and cure rate to ensure a successful installation.

- Advantage of UV LED cure: A stronger and more durable method than steam and hot curing. UV LED curing significantly is more efficient as it takes less time and has an even smaller environmental footprint. Furthermore, unlike heat curing, UV curing has no styrene emission.
- Disadvantage of UV LED cure: The process of UV curing large diameters requires a greater investment than other options. There is a limitation on installing long lengths over 100 m dependant on the UV rig set up.

UV LED Curing Options

S1E has partnered with two great brands to offer UV-cured CIPP lining systems to provides seamless results on site. The Brawo Magnavity LED light-curing system and the Starlight UV lining system offer the same benefits of using a UV method but are both unique in their field or should that be pipe, of expertise.

The Starlight UV lining system from I.S.T. Germany is supplied exclusively in the UK by S1E. The system is a versatile and mobile UV curing machine, with fast curing time for DN100 to DN400 and perfect for mainline pipe repairs and thick or Fibreglass GRP liners. Not only does the system combine perfectly with the Starlight Plus liner, it can be used with other UV liners if preferred.

S1E has recently become the first UK reseller of the Brawo Magnavity LED lining system, from BRAWO Systems. The new innovative solution has already been making a significant impact on two water utility companies in the UK, significantly speeding up the previously difficult process of lining both rainwater and foul stack pipes, with less disruption, using far less energy and creating less material waste, as well as successfully re-rounding and lining the common challenge of Pitch-Fibre Pipes with areas of deformation exceeding 40%, to leave it fully serviceable and flowing free.

The Brawo Magnavity system is ideal for sewer pipes, connection pipes with bends or pipes from shaft to shaft. It is perfectly matched to install the Brawoliner product range, so it has very good bend flexibility while also being smart, efficient, and strong.

Summary

There are many factors to take into consideration when deciding which CIPP lining process to use but overall CIPP installations can reduce costs by 40% to 60% and result in less disturbance to people and the environment when compared to excavation methods.

More and more organisations are moving away from traditional dig-and-replace methods and are advocating for CIPP trenchless technology. Here at S1E Ltd the company supplies certified and quality CIPP lining Equipment and Systems through an experienced sales team which is always available to help.

Article was provided by S1E Website: www.s1e.co.uk



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Pipe Handler

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SOCIETY NEWS

ISTT News brought to members by Trenchless Works

A MESSAGE FROM THE CHAIR



Keh-Jian (Albert) Shou, Chairman, ISTT



At the ITTC event



International event in Taiwan

Hi ISTT members!

I would like to share my experience with you about the No-Dig conferences I have attended over the past few weeks. ITTC 2023 in Suzhou, NASTT 2023 No-Dig Show in Portland, the 4th Trenchless Latin American Conference in Cartagena, Colombia, the 2023 Taiwan International No-Dig Forum in Taipei, etc. were full of exhibitors and attendees. I can tell our field is extremely vibrant. Furthermore, I will try my best to join as many events as possible to encourage our Affiliated Societies.

Preparation for the International No-Dig Mexico, to be held between 17 and 18 October, 2023 in Mexico City, is well underway. To encourage and allow more attendees, we have extended the call for Conference abstracts to 1 June, 2023. Please be aware that we will have other activities like ISTT Awards as usual, so please also prepare and submit your Awards applications. In addition, to make sure you can travel in a smooth way, please kindly book your ticket and hotel as early as possible, since I believe it will be a big event after a long silence during the pandemic.

ISTT is trying to provide more services to our Affiliated Societies through our website. We have provided and will provide more technical and non-technical material. Please kindly keep watching our new developments, and feel free to provide us your comments or suggestions. I am looking forward to see you soon either in our webinars or at the No-Dig events that are being held in different places.

With my Best Wishes!

Keh-Jian (Albert) Shou Chair, ISTT



From the ISTT Award Ceremony 2022 - Dr John Matthews receives his Award ISTT is excited to announce the call for entries for the 2023 ISTT No-Dig Awards. These awards are given to individuals and organisations that have achieved outstanding accomplishments in the trenchless technology industry. The winners receive extensive recognition via magazine articles and website presence. We encourage you to apply for this opportunity. The closing date is 31 August 2023 (17:00 US EDT).

Please refer to the website for more details: https://www.istt.com/index/submit-no-dig

How to submit

Applications must be in English and should be prepared keeping the criteria below in mind with a maximum of 1,000 words and supported by suitable illustrations in PDF. One or two images representing your entry should also be submitted. Specify the category of the Award from the list below and send it with the entry form.

Categories

Four categories are eligible to receive Awards as shown below. Awards may not be made in all categories in a given year.

- 1. Academic research or training course.
- 2. Trenchless project completed (projects completed within a year or two) limited to Corporate members.
- 3. New technology (tool, material, system or technique introduced) limited to Corporate members.
- 4. Student or young professional paper Members enrolled in college or university or spending at least half their time on academic course work.

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Submission of Abstracts DEADLINE EXTENDED to 1 June 2023



















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Fellow Award designates for 2022

As a recognition for long-term involvement in the ISTT and technical or professional contributions to the ISTT, the ISTT Board has created the membership grade of ISTT Fellow. For an ISTT member to apply (or to be considered) to become an ISTT Fellow, the member must meet all of the following criteria:

- Been an ISTT member (or worked for a company holding an ISTT Corporate Membership) for a cumulative total of at least 15 years (gaps in membership are permitted and membership can either have been through an ISTT Affiliated Society or as an International member in the case that there was/is no ISTT society).
- Registered for and attended at least 12 International No-Dig Conferences (exhibit only or 1-day registrations are not counted as full attendance).
- Had a minimum of 5 technical papers included in ISTT conference proceedings.

An ISTT member wishing to be considered to be named an ISTT Fellow should submit an application via below link by 15 September 2023 providing: >

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SOCIETY NEWS

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- Name, work affiliation (if any), address, email address, phone number.
- One-page biographical sketch.
- A list of the years of ISTT membership with Affiliated Society name, category of membership (i.e., as an individual or under a corporate membership), and corporate membership name, if pertinent.
- A list of the ISTT International No-Dig Conferences attended as a full registered participant.
- Citation information for the papers published in ISTT conference proceedings.
- A list of the years of services and position with Affiliated Society.

Please submit your entry from the website: https://www.istt.com/

Once the ISTT has reviewed the data submitted, the candidate's name will be considered by the Technical and Education Committee (TEC) of ISTT. Applications that are sent forward by the committee will then be endorsed by the ISTT Board of Directors as the final decision. The granting of Fellow status is based on significant accomplishments in the field of trenchless technology as demonstrated, for example, by work experience, by publications, by inventions, by technology advancements, or by mentoring of individuals.

The TEC is also empowered to make its own nominations for ISTT Fellow in special cases where an individual has made notable technical and/or professional contributions to the ISTT over a long period of time but does not meet specific aspects of the standard eligibility criteria.

When approved, the individual will be entitled to refer to themselves as 'ISTT Fellow' or 'Fellow of the International Society for Trenchless Technology' and will receive a certificate confirming their status as ISTT Fellow. The ISTT Fellow designation is a continuing recognition but, to retain the ISTT Fellow designation, the person in question must remain an ISTT member in good standing either as an individual member or under a corporate membership. Once an ISTT Fellow status has lapsed, the individual will still be able to list the former status as ISTT Fellow with the years that the status was held. To apply to be reinstated as an ISTT Fellow, a letter requesting a re-evaluation should be submitted to the ISTT Executive Director.



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TRENCHLESS ASIA is the major annual international gathering for trenchless technologists to meet and discuss the latest industry developments featuring:

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- Underground Infrastructure
- Pipeline Technologies
- Underground Utilities
- Trenchless Solutions for Urban Flooding
- Knowledge Transfer
- Green Technology



For more details regarding exhibiting and sponsorship opportunities please contact: Paul Harwood at pharwood@westrade.co.uk or +44 (0)1923 723990

Stuart Hillyard at shillyard@westrade.co.uk or +44 (0)1923 723990

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SOCIETY NEWS

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ISTT LAUNCHES EDUCATIONAL YOUTUBE CHANNEL 'ISTT TRENCHLESS TALKS'

The International Society for Trenchless Technology (ISTT) has announced the launch of a new educational YouTube channel, 'ISTT Trenchless Talks', aimed at providing informative content for those interested in trenchless technology.

The channel, supervised by the Technology and Education Committee, will feature a variety of content, including videos from ISTT Educational Webinars and the Student Class held in Helsinki last year. The webinar videos, presented by leading industry experts, cover topics ranging from the basics of trenchless technology to advanced techniques, while the Student Class videos provide an introduction to trenchless technologies presented by leading experts in their respective fields.

Here are the video titles:



CIPP
John Matthews
Environmental Impact
Assessment of Steam-Cured
Cured-in-Place Pipe (CIPP)



CIPP
Dec Downey
A review of developments in
UV Cured CIPP lining from its
introduction in 1985



HDD Samuel Ariaratnam Considerations of Design and Construction for Horizontal Directional Drilling



Rehabilitation lain Naismith Sewer Manhole Rehabilitation – quality assurance and comparison of techniques



Rehabilitation lain Naismith Repair of lateral sewers and lateral connections - compariz











Rehabilitation lan Ramsay Cured in Place materials and system quality assurance based around a performance specification and site evaluation

Pipe jacking Hideki Shimada On the Soil Behavior due to Rectangular Pipe Jacking

CIPP Tom Sangster Design Methods for CIPP Liners in Gravity and Pressure Pipes - an Overview

CIPP Jan Borje Persson CIPP rehabilitation. Material and performance

Pipe jacking Wout Broere Soil friction and interaction during Microtunneling

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ISTT Trenchless Talks Home Page Screen Shot

Student Class Videos

Category	Title	Speaker
Overview	History of Trenchless Technology Development	Declan Downey
Contract	Contracting Mechanisms	Mounir El Asmar
Geotechnical Investigations	Geotechnical Investigations	Keh-Jian (Albert) Shou
Pipe Inspection	Pipeline Inspection Tools	Jens Holterhoff
HDD	Horizontal Directional Drilling	Samuel Ariaratnam
Pipe Jacking	Microtunneling/Pipe Jacking	Wout Broere
Pipe Ramming	Pipe Ramming	Kimberlie Staheli
Pipe Bursting	Pipe Bursting	Raymond Sterling
Non-Pressure Pipe Rehabilitation	Rehabilitation/Replacement Methods for Non-Pressure Pipe	lain Naismith
Pressure Pipe Rehabilitation	Pressure Pipe Rehabilitation Methods	John Matthews

The aim of the channel is to become the go-to source for trenchless technology education. Education is key to advancing trenchless technology, and the ISTT is committed to providing high-quality educational content. The channel will be updated with other educational content. Whether you are a student, a professional in the industry, or someone interested in learning more about trenchless technology, "ISTT Trenchless Talks" on YouTube is the place to be.

The New Channel can be subscribed to at: https://www.youtube.com/@istt_trenchless



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Contact: Paul Harwood or Stuart Hillyard

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AFFILIATED SOCIETIES

ISTT Affiliated Societies around the world



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c/o TU Wien Resselgasse 5, 1040 Wien, Austria Phone: +43 664 5184084 Email: office@grabenlos.at Web: www.grabenlos.at



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Hong Kong

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China Society of Geology – Trenchless Technology Committee (CSTT)

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Chinese Taipei Society for Trenchless Technology (CTSTT)

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Czech Society for Trenchless Technology (CzSTT)

Bezova 1658/1 ,147 14 Praha 4 Czech

Republic

Phone: +420 244 062 722 Email: office@czstt.cz Web: www.czstt.cz



Danish Society for Trenchless Technology - NoDig Infra (DKSTT)

Odinsvej 29 Silkeborg Denmark Phone: +45 50894489 Email: tina@juul-consult.dk

Web: www.nodiginfra.dk/nodig-infra/

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Finnish Society for Trenchless Technology (FISTT)

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4 rue des Beaumonts, F-94120 Fontenay Sous Bo, France Phone: +33 1 53 99 90 20 Email: contact@fstt.org Web: www.fstt.org



German Society for Trenchless Technology (GSTT)

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Italian Association of Trenchless Technology (IATT)

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Latin American Society for Trenchless Technology (LAMSTT)

Medellín Highway (Calle 80) KM3.5 via Bogotá-Siberia south side, Bogotá Terrestrial Cargo Terminal, Office C-12, Cota – Cundinamarca, Colombia Phone: +57 1 8764675 Email: cistt.arlex.toro@lamstt.org

Web: www.lamstt.org



Malaysia Association for Trenchless Technologies (MATT)

No 44, Jalan Dungun, Damansara Heights, Kuala Lumpur 50490 Malaysia Email: trenchless@matt.org.my Web: www.matt.org.my



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The Russian Society Trenchless Technology Association (RSTT)

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Trenchless Romania Club

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United Kingdom Society for Trenchless Technology (UKSTT)

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NASTT SOCIETY NEWS

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Matthew Izzard, Executive Director, North American Society for Trenchless Technology (NASTT)



It is amazing how quickly things change. Only yesterday it relt like the beginning of January but suddenly the sun arrives in the Pacific Northwest, it is early May and NASTT is reflecting on another highly successful No-Dig Show, held in Portland, Oregon.

In a rapidly developing urban area there are many large projects to install or replace utility infrastructure planned and underway in some of the most challenging geotechnical conditions, created by the stunning backdrop of mountain ranges, forest and waterways. Over two hundred Municipalities and Public Works Scholarship places were awarded to project managers and engineers who attended the event looking for alternative delivery methods to these challenges, packing the technical presentations and exhibition floor. Growth is only possible by those willing and we are proud to provide those networking opportunities to enable a change in thinking and understanding of what is possible with the effective use of trenchless technology.

It was also inspiring to see our students back! Over 100 people from NASTT's 18 University Chapters were awarded scholarship places to the full conference and had an opportunity to showcase their research to industry leaders. Many are choosing their career path and it was great to see the engagement with exhibitors and sponsors connecting to recruit the best talent that provides the gateway into trenchless technology so important to building our futures.

Congratulations to all our Award winners and thank you to those who participated. The next No-Dig Show will be in April 2024 at Providence, Rhode Island. Exhibitor places, sponsorship opportunities and technical presentation abstracts can be submitted through www. nodigshow.com

In the meantime, we are continuing to support the ISTT International No-Dig in October, another focus area which has seen much change in the last two years. The formation of the Mexico Regional Chapter is now well established, and we are proud to welcome our latest Student Chapter with UNAM School of Engineering. The requirement for rehabilitation of Mexico City's utility infrastructure is leading interest in utilising trenchless technology where the demand and potential for trenchless technology is high. We encourage you to make a difference and create opportunity by submitting a presentation abstract through www.no-digmexico.com

Congratulations to Trenchless Works magazine on its recent 200th issue. For so many years this magazine has kept us up to date with the latest developments in trenchless technology and both have come a long way since those early days and the publication has become one of the leading global communicators of our successes. We would get you a cake but would never get all the candles on!

Note from the Editor – Don't worry about the candles just send cake!



Call for Abstracts

SUBMISSION DEADLINE: JUNE 30, 2023

The North American Society for Trenchless Technology (NASTT) is now accepting abstracts for its 2024 No-Dig Show in Providence, RI at the Rhode Island Convention Center April 14-18, 2024. Prospective authors are invited to submit a 250-word abstract outlining the scope of their paper and the principal points of benefit to the trenchless industry.

The abstracts must be submitted electronically by June 30, 2023 on the NASTT website:

nastt.org/no-dig-show





The No-Dig Show is owned by the North American Society for Trenchless Technology (NASTT), a not-for-profit educational and technical society established in 1990 to promote trenchless technology for the public benefit. For more information about NASTT, visit our website at nastt.org.

NASTT SOCIETY NEWS

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NASTT UPCOMING EVENTS

May 24

GLSLA Seminar: Trends in CIPP Mississauga, Ontario, Canada

May 24

RMNASTT Networking Mixer Greenwood Village, Colorado, USA

May 30

CIPP Good Practices
Richmond, British Columbia, Canada

June 28

Introduction to Rehabilitation Mexico City, Mexico

June 28-29

New Installation Methods Good Practices VIRTUAL

September 28

Gas Good Practices
VIRTUAL

October 11

Trenchless Elevated 2023 Golden, Colorado, USA

October 17-18

ISTT International No-Dig Mexico City, Mexico October 23-25

No-Dig North 2023 Edmonton, Alberta, Canada

November 16

Municipal Sewer Grouting Good Practices VIRTUAL

December 13-14

Pipe Bursting Good Practices
VIRTUAL

April 15-17, 2024

NASTT 2024 No-Dig Show Providence, Rhode Island, USA

October 21-23, 2024

No-Dig North 2024 Niagara Falls, Ontario, Canada

March 30 – April 3, 2025

NASTT 2025 No-Dig Show Denver, Colorado, USA

March 29 - April 2, 2026

NASTT 2026 No-Dig Show Palm Springs, California, USA

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SOCIETY NEWS



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WELCOME FROM THE CHAIR



Ian Ramsay, Chair, UKSTT

May is proving to be a very busy time with trade shows and conferences. I have been fortunate, to have had the opportunity to travel to Poland for a conference on Cured in Place Pipelining, Dublin for the Westrade & UKSTT's NODIG Roadshow, USA for the NASTT conference, Germany for the biennial RO KA TECH event and Malaysia for Trenchless Asia. What I have gained from visiting these events, apart from jet lag and a nightmare expense report, is the knowledge that trenchless technology continues to grow and develop, bringing new innovations to the industry.

Many of these events include a full day's conference programme and open panel discussions. I think these are so important as they give the audience an opportunity to discuss with experts and experienced people the issues, ideas and concerns they have. The UKSTT's conference in Dublin particularly highlighted the issues of ground water on trenchless techniques and delivered great case studies.

I am looking forward to the next NODIG Roadshow in Glasgow, supported by Scottish Water & SGN, which will include keynote presentations highlighting their drive for innovation. The exhibition space is now sold out and registration is well under way.

Training opportunities are increasing, with the options to attend online courses that highlight the requirements that the asset owners and contractors face and the issues they need to overcome. This helps to eliminate the guess work and provides the knowledge that the manufacturers and suppliers need to look at developing new innovations.

Trenchless is growing, which is good news, but it is also growing innovatively and with attention to quality.

As always please feel free to contact Lynn or myself with any trenchless issues.

lan Ramsay UKSTT Chair

NO-DIG ROADSHOWS





After a very successful first event in Dublin this March, join us at the following locations for our series of Roadshows and the UKSTT Annual Awards taking place in November!

NO-DIG ROADSHOW GLASGOW

DoubleTree by Hilton Westerwood Spa & Golf Resort

Thursday 15 June 2023

NO-DIG ROADSHOW & UKSTT ANNUAL AWARDS BRISTOL

De Vere Tortworth Court, Wotton Under Edge

Wednesday 29 November 2023

To book please contact: Gary King, gking@westrade.co.uk or +44 (0)1923 723 990

www.nodigroadshows.co.uk | +44 (0)1923 723 990 | Kathryn Boi kboi@westrade.co.uk

The No-Dig Road Show series is organised by Westrade Group Ltd and supported by the United Kingdom Society for Trenchless Technology (UKSTT)

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UKSTT AWARDS DINNER 29th November 2023

De-Vere Tortworth Court,
Tortworth, Wotton Under Edge,
GL12 8HH

UKSTT AWARDS 2023 CALL FOR ENTRIES

CLOSING DATE: FRIDAY 21 JULY 2023

AWARD CATEGORIES:

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- New Installation Large Project (£350K+)
- New Installation Small Project (£70K 350K)
- Renovation Large Project (£350K+)
- Renovation Small Project (£70K £350K)
- Small Scheme (<£70K)
- Young Professional



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EVENTS AND MEETINGS

2023

lune 15: No-Dig RoadShow Glasgow

DoubleTree by Hilton Westerwood Spa & Golf Resort, Glasgow, Scotland

Details from: www.nodigroadshows.co.uk

July 4-6: São Paulo No-Dig Show

Av. Dr. Dante Pazzanese, 120 - Vila Mariana, São Paulo Details from:

www.abratt.org.br/eventos/sao-paulo-no-dig-show-esta-definido/

September 13 - 14: ASTT NO-DIG Downunder

Brisbane Convention and Exhibition Centre Details from: www.nodigdownunder.com

October 17-18: International No-Dig Mexico 2023 ISTT's 39th International No-Dig Conference and Exhibition

Expo Santa Fe, Mexico Details from: www.no-digmexico.com/

November 1-2: No-Dig Turkey 2023 Conference and Exhibition

Darulbedai Cad. No 4 Harbiye Sisli, Istanbul 34367, Turkey

November 1-3 November: 18th International ACLILIS Conference

Singapore

Details from: www.acuus.org

November 8-9: Trenchless Egypt 2023

Cairo International Conference Centre Details from: www.trenchlessegypt.com

November 8-9: STUVA-Expo 2023 in Munich

Messe München, Messegelände, Hall C1 81823 München, Germany Details from:

www.stuva-expo.de/en/start-stuva-expo-2023.html

November 29: No-Dig RoadShow Bristol & UKSTT Annual Awards

De Vere Tortworth Court, Wotton Under Edge Details from: www.nodigroadshows.co.uk

2024

lune 26-27 Trenchless Asia 2024

SMX Convention Center Manilla, Philippines

October 1.2 & 3rd No-Dig Live 2024

NAEC Stoneleigh Park, Warwickshire

18-19 November: International No-Dig Dubai 2024

ISTT's 40th International No-Dig Conference and Exhibition

Dubai World Trade Centre, Dubai

If you have an event, course or meeting scheduled and would like to add it to this listing please forward details to: editorial@trenchless-works.com